t119_finseq_2 (TMQPAt9joSGrPtoTkkSZCZqJH3nJ1gXTZ7L)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $k4\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge ((v3\_card\_1\ X1\ X0) \wedge (v1\_finseq\_1\ X1)))) \Rightarrow (k4\_finseq\_1\ X1 = k2\_finseq\_1\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \Rightarrow (((k4\_finseq\_1\ X0 = k4\_finseq\_1\ X1) \wedge (\forall X2.(v7\_ordinal1\ X2) \Rightarrow ((X2 \in k4\_finseq\_1\ X0) \Rightarrow (k1\_funct\_1\ X0\ X2 = k1\_funct\_1\ X1\ X2)))) \Rightarrow (X0 = X1))) \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.\forall X2.(X1 \in k4\_finseq\_2\ X0\ X2) \Rightarrow ((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge ((v3\_card\_1\ X1\ X0) \wedge (v1\_finseq\_1\ X1))))) \tag{3}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.((v3\_card\_1\ X2\ X0) \wedge (m2\_finseq\_1\ X2\ X1)) \Rightarrow (X2 \in k4\_finseq\_2\ X0\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Rightarrow((v1\_funct\_1\ X1)\wedge(\\(v1\_finseq\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\\X0)))))) \tag{5}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow(\\\forall X2.((v3\_card\_1\ X2\ X0)\wedge(m2\_finseq\_1\ X2\ X1))\Rightarrow(\forall X3.\\((v3\_card\_1\ X3\ X0)\wedge(m2\_finseq\_1\ X3\ X1))\Rightarrow((\forall X4.(v7\_ordinal1\\X4)\Rightarrow((X4\in k2\_finseq\_1\ X0)\Rightarrow(k1\_funct\_1\ X2\ X4=k1\_funct\_1\ X3\ X4)))\Rightarrow\\(X2=X3)))))$$